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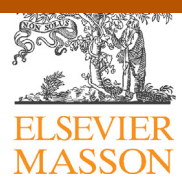

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IMAGE

Usefulness of cardiac magnetic resonance imaging in the diagnosis of cardiac myocarditis revealed by complete atrioventricular block

Apport de l'IRM cardiaque dans le diagnostic de myocardite révélée par un bloc atrioventriculaire complet

Samuel Chauveau[a,*], **Nicolas Girerd**[a], **Philippe Chevalier**[a,b]

[a] *Department of Rhythmology, Hospices Civils de Lyon, Louis-Pradel Cardiovascular Hospital, Lyon, France*
[b] *Lyon Reference Centre for Inherited Arrhythmias, Louis-Pradel Cardiovascular Hospital, Lyon, France*

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Sarcoidosis

MOTS CLÉS
Bloc atrioventriculaire complet ;

A previously healthy 37-year-old man was admitted to our hospital for recurrent syncope. An electrocardiogram showed complete atrioventricular block (Fig. 1A). Medical history, clinical examination, echocardiography, chest X-ray (Fig. 1B), coronary arteriography, biological samples (including calcaemia, lyme serology, angiotensin enzyme blood concentration, antineutrophil cytoplasmic antibody and antinuclear antibody tests) were all unremarkable.

Cardiac magnetic resonance (CMR) imaging showed extensive subepicardial enhancement in the basilar anterior, inferoposterior and septal ventricular walls (arrows, Fig. 1C and D). These findings were consistent with fibrotic lesions related to subacute or chronic myocarditis. A computed tomography scan demonstrated evidence of micronodular pulmonary infiltration (Fig. 1E) and spleen hypodense nodular lesions (Fig. 1F). Salivary gland and bronchial biopsies were normal. Despite the absence of non-necrotizing granulomas in the biopsies, our internal medicine team considered that the overall clinical pattern was highly suggestive of systemic sarcoidosis. Although the diagnosis of cardiac sarcoidosis was not certain according to the Japanese Ministry of Health and Welfare criteria, prednisolone was started at a dose of 1 mg/kg/day. A permanent pacemaker was implanted during the patient's initial hospital stay. At 3 months, atrioventricular conduction was normal.

Abbreviation: CMR, cardiac magnetic resonance.

* Corresponding author. Service de Rythmologie, Hôpital Cardiologique Louis-Pradel, 59, boulevard Pinel, 69677 Bron cedex, France. Fax: +33 4 72 35 73 41.
E-mail address: samuelchauveau@hotmail.com (S. Chauveau).

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Myocardite ;
Imagerie par résonance magnétique ;
Sarcoïdose

Cardiac sarcoidosis accounts for up to 25% of unexplained complete atrioventricular block in young and middle-aged patients. Therefore, we feel that CMR is essential to explore atrioventricular block, especially in young and middle-aged people. This case illustrates the fact that atrioventricular conduction abnormalities can resolve even in the setting of subacute or chronic myocarditis, particularly when appropriate therapy is provided.

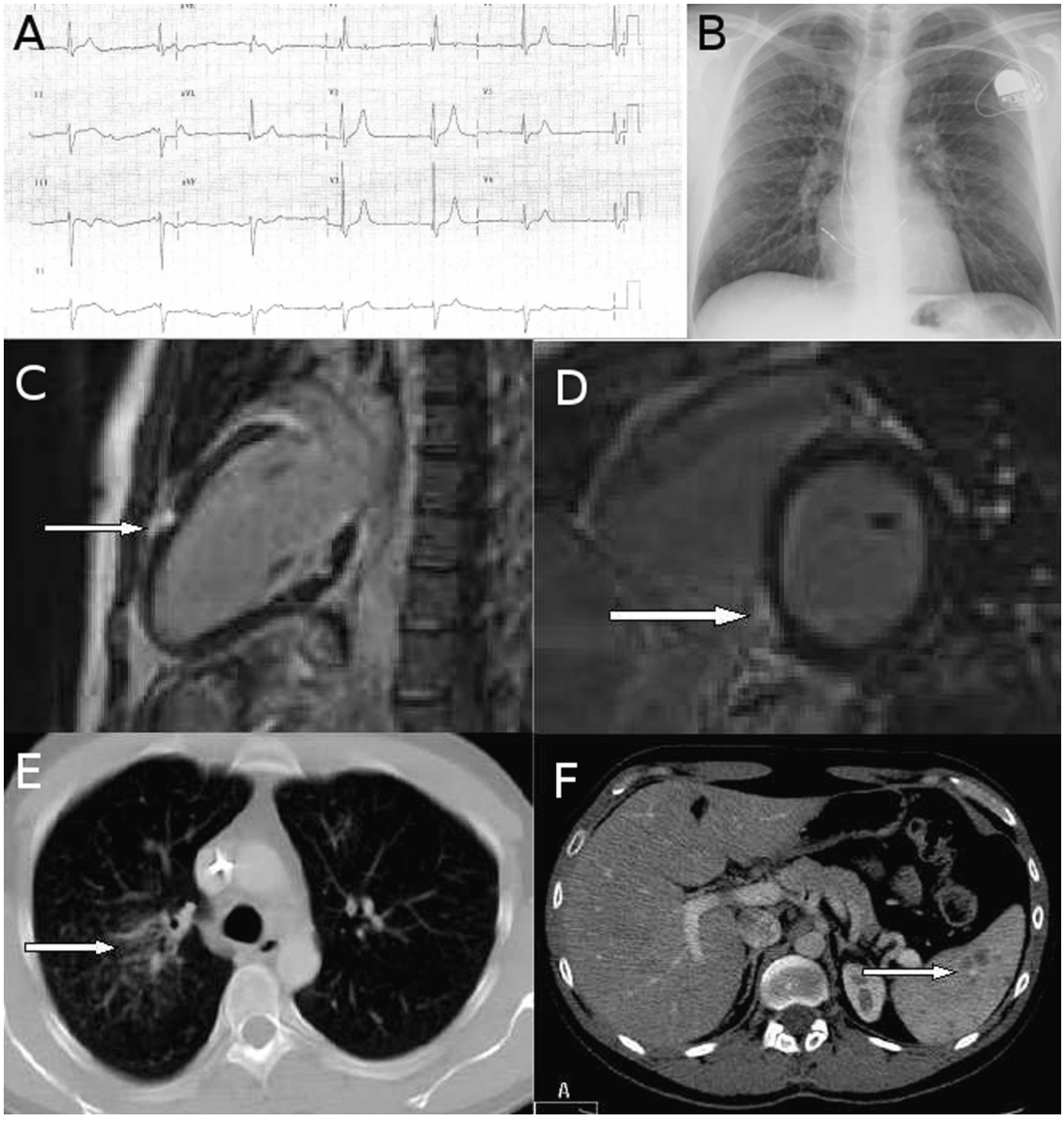

Figure 1. A. A rest electrocardiogram demonstrated complete atrioventricular block with a ventricular rate of 40 beats/min. B. A chest X-ray after pacemaker implantation was unremarkable. C, D. Cardiac magnetic resonance imaging showed epicardial delayed enhancement of the anterior wall and the inferoseptal wall. E, F. A computed tomography scan showed micronodular pulmonary infiltration and spleen nodular hypodense lesions.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.